

attempted to be accounted for in two ways. *First*, that although a first vaccination is successful and characteristic, it may, in certain cases, from constitutional insusceptibility or some other cause not well understood, afford only a partial or imperfect protection against smallpox; or *secondly*, that a first successful vaccination gives only during a certain period full and perfect protection, which becomes gradually impaired in the course of the organic changes constantly taking place in the human organism, especially the change from childhood to adult life.

"My opinion," says Dr. Snow, "has always been, that the first theory is true; but the facts I have collected during the past season, seem to favour the last theory. But whichever of them is true, *the necessity of revaccination is fully established*. A revaccination, with its peculiar modified effects, is the only certain proof that the first vaccination was good, and that the person is fully protected. And if a person has been vaccinated and revaccinated until no characteristic effect is produced by it, he may rest perfectly satisfied that he is safe from all danger of contracting either smallpox or varioloid."

The truth of this statement is established by a long series of the most imposing statistics.
D. F. C.

ART. XXI.—*Report of a Select Committee of the New York Chamber of Commerce on Quarantine*. Adopted July 7, 1852. 8vo. pp. 48.

CONSIDERED in all its aspects and relations, the subject of quarantine is one which presents strong claims to the serious consideration of every enlightened community. In the correctness of the views entertained in reference to it, and the propriety of the means by which those views are attempted to be carried out in practice, are involved not merely the interests of the mercantile classes, but the safety and comfort of every individual resident within the limits of a commercial city.

When we take into account the state of popular and even professional knowledge as to the nature and etiology of diseases, and the gross errors which prevailed as to the mode of their propagation, when quarantine was first adopted, little surprise need be entertained at the absurdities—the unwise restrictions—the personal annoyances by which it was characterized at its inauguration, and for a long period subsequently; nor at the controversy to which almost every question in relation to it—its efficiency as a means of preventing the introduction of disease—its proper duration, or the best plan for its practice and enforcement—has, from time to time, given rise. The only thing surprising in the case is, that the experience derived from a close observation of the results of quarantine at the different ports at which it has been most strictly enforced, and during a series of extensive epidemics of malignant disease, together with the light derived from our increased and more exact knowledge of the character and causation of many of the maladies as a barrier to which quarantine was, at first, more especially designed, that any difference of opinion should continue upon the subject—that there does not exist an almost unanimity of sentiment as to the actual objects to be attained by a judicious system of quarantine, as well as to the mode in which such a system must be administered in order that its legitimate purposes may be secured. There are certainly no inherent or any other very serious difficulties in the way of a satisfactory settlement of the entire question of quarantine. We are persuaded that were it left to a commission composed of enlightened and experienced physicians a system of quarantine could be devised, the faithful execution of which, while it secured to the community all the safety from the introduction of disease into its midst, that it is possible by the best devised and most strictly observed precautions to afford, would be divested of many, if not all, of the onerous burdens, arbitrary and unwise restrictions, pecuniary sacrifices, and positively mischievous results which are justly chargeable to some, at least, of the quarantine regulations now in force.

The discussion of the subject of quarantine by conventions held during the

years 1847, 1848, and 1849, and composed of delegates from the leading commercial ports of the United States, of unquestionable character and intelligence, and selected because of their supposed familiarity with the important questions involved in the subject of the prevention of disease by and through the commercial marine, has brought the subject of quarantine prominently before those most deeply interested in it, and in a form the best adapted to furnish the true data upon which alone correct views and practices in respect to it can be based.

The final action of the last session of the National Quarantine Convention, held in the city of New York during the past year, is the cause which prompted the appointment by the Chamber of Commerce of that city of a special committee to report on "the general subject of the quarantine laws of the State, and the legislation required to give practical effect to the declared sentiments of the National Quarantine and Sanitary Convention."

The conclusions arrived at by the committee and embodied in the report which lies before us are based mainly upon the reports and discussion of the last-named convention, and the opinions furnished to the committee, at its request, by eminent members of the medical profession of New York, in regard to the scientific questions involved in the general subject submitted to it for its investigation. Although, occasionally, somewhat loosely worded, the conclusions at which the Committee of the New York Chamber of Commerce has arrived are in accordance with the facts which are deducible from the history of quarantine—the observations of the most enlightened physicians in respect to the correct etiology and mode of propagation of diseases, and the lights derived from the scientific discoveries of the age generally.

The committee recommends that "the persons of the sick and the well should be relieved from the confined and impure atmosphere of the vessel, and, instead of being imprisoned within the narrow limits of a quarantine station, they should at once, after proper cleansing and changing of raiment, be allowed free egress into the pure air of the country or their customary places of residence.

"The question of safety in regard to clothing and bedding, and articles of merchandise which, by medical advice, are brought under the term of *fomites*, is a different one, and must be treated with a due regard to the lights which science and experience have granted to us."

In considering how far existing restrictions should be modified in regard to crews and passengers sick, or in danger of infection, from smallpox, typhus fever, or cholera, the report speaks as follows:—

"In reference to the first named disease it is, unfortunately, always rife in our midst, and the regulations of quarantine can do no more for the protection of the community against its ravages than to keep the well who pass through its bounds free from danger of contagion by vaccination, and to place the sick at the earliest practicable moment within the influence of good air and judicious treatment."

"Typhus fever is a malady to be dreaded, and, under certain unfavourable circumstances, more so than either of the diseases mentioned. In unwholesome places, and especially in uncleanly and infected vessels, it is a fearful enemy of human life. It should rarely, if ever, be confined within the close bounds of a quarantine station longer than is indispensably necessary for the purification of person and clothing, and the removal to more appropriate accommodations.

"The like remarks will apply to cholera, in regard to which disorder confinement should rarely be resorted to. This is a malady to be found only where localizing conditions that favour its prevalence exist, as on shipboard, in filthy dwellings, in pestilential atmospheres, or where large bodies of people are congregated. How palpable, then, is the truth that the patient should at once be removed beyond such influences!" * * *

The committee declare it as their opinion that the effect of the general prevalence of the doctrine of non-contagion of yellow fever, founded, as they remark, on principles of truth, justice, and philanthropy, adopted by the National Convention, will be beneficial in an eminent degree to the interests of commerce, and will exercise a large influence in extending the work of reform in other branches of the quarantine station.

While we believe that the general doctrines recognized by the report before

us are founded in strict truth, and that efforts should be made to obtain the proper legislation for a thorough revision of the quarantine laws of all our commercial cities in accordance with those doctrines, we have to regret the very loose use of the term *fomites* to indicate the several media by which non-contagious diseases may be communicated through the commercial marine—foul vessels, foul cargoes, foul baggage and clothing, etc. The term *fomites* has heretofore been restricted to such materials as are capable, under certain circumstances, of absorbing and retaining unchanged *contagious* emanations, so as to convey them to distant places, and there give rise to the same specific diseases in those who are exposed to the materials thus charged with contagious matter as those from which the latter were derived. Much confusion, to say the least, must necessarily be occasioned by the employment of the term in a sense so very different from its original and well-established one as that which is given to it in the report before us.

/ D. F. C.

ART. XXII.—*Remarks upon Chylous or Milky Urine, with an Account of Two Cases of that Disease.* By C. E. ISAACS, M. D., one of the Surgeons of the Brooklyn City Hospital, etc. etc. Read before the New York Academy of Medicine, June 15th, 1859.

THE peculiar appearance of the urine known as chylous or milky urine, is of extremely rare occurrence. It is very certain, at least, that the observations which have been reported, heretofore, in respect to it, are too few in number and too imperfect in details, to enable us to form any definite conclusions either in reference to the particular circumstances under which it is liable to occur, or the lesions of the principal organs, if any, with which it is most generally associated. Even so far as regards the chemical composition of the urine upon which its so-called chylous or milky condition depends, we know nothing with certainty; few, if any, accurate microscopical or chemical examinations having been made with the view of testing it.

Two cases of the disease having occurred at the Seaman's Retreat, Staten Island, N. Y., under the care of Dr. T. C. Moffat, chief physician of the institution, a favourable opportunity was offered for the careful study of some of the morbid conditions of the organism with which chylous or milky urine is associated, and the difference in composition between the latter and the renal secretion in its normal state. The history of these cases is presented by Dr. Isaacs, consulting surgeon to the Retreat on Staten Island, in the publication before us, together with some general deductions as to the causes and nature of the condition of the urine in question, drawn from the examination of the facts derived from the study of these two cases, and the few others found upon record.

In one of the cases which occurred at the Retreat—that of a Spanish sailor, twenty-six years of age—in which a milky state of the urine had existed, at irregular intervals, for upwards of three years—an examination of the fluid by the microscope and by chemical tests, demonstrated conclusively, the existence in it of urea, lithic acid, chloride of sodium, hydrochlorate of ammonia, sulphuric acid, hydrochloric acid, the triple phosphates of ammonia and magnesia, and the phosphate of lime—in a word, the principal normal constituents of the urine; and it is probable, that *all* of the constituents of the secretion existed in the urine thus examined. In addition, it contained oil and albumen, and sometimes fibrin, and it was conclusively demonstrated that the peculiar milky appearance of the urine was owing to the intimate combination of these two substances, forming, indeed, a kind of emulsion. There were no red globules nor tube casts detected, after the most careful and repeated examinations.

In the second of the cases at the Retreat, that of a sailor born in Santa Cruz, twenty-three years of age, the condition of the urine was found upon examination, to be the same as in the former case; excepting that the urea and lithic